SEQUENCE LISTING

<110> Baum, Peter
DuBose, Robert
Sims, John E
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Hilbush, Brian S

<120> Novel DNAs and Polypeptides

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<210> 19
<211> 2410
<212> DNA
<213> Homo sapiens

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<211> 1669
<212> DNA
<213> Homo sapiens

<400> 20

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<210> 21
<211> 1025
<212> DNA
<213> Homo sapiens

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<210> 22
<211> 1039
<212> DNA
<213> Homo sapiens

<400> 22
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<210> 23
<211> 466
<212> DNA
<213> Homo sapiens

<400> 23
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<210> 24
<211> 32
<212> PRT
<213> Homo sapiens

<400> 24
Met His Trp Glu Glu Ala Gln Ile Ser Arg Ala Val Leu Ser Leu Pro
1 5 10 15

Arg Ile Asp Leu Cys Val Ser Pro Asn Lys Leu Thr Tyr Ser Pro Lys
20 25 30

<210> 25
<211> 98
<212> PRT
<213> Homo sapiens

<400> 25
Met Glu Phe Asn Thr Thr His Tyr Arg Glu Phe Gly Pro Arg Gly Gln
1 5 10 15

Glu Phe Gly Thr Arg Gln Gln Gln Gln Gln Lys Lys Thr Glu His Leu
20 25 30

His Ile Thr Asp Thr Gln Phe Lys Lys Gln Asn Ile Thr Ala Pro Ser
35 40 45

Arg Ile Phe Leu Gly Ser Leu Pro Ser Leu Leu Thr Pro Asp Tyr Lys
50 55 60

Gln Pro Pro Pro Ile Ser Pro Asp Ile Val Leu Tyr Glu Ser Ser Ser
65 70 75 80

Ser Gln Met Gly Leu Phe Cys Pro Leu Gly Thr Leu Gly Ser Ile Trp
85 90 95

Arg His

<210> 26
<211> 663
<212> PRT
<213> Homo sapiens

<400> 26
Met Ile Val Gln Met Thr Val Ile Leu Lys Leu Glu Met Pro Gln Asp
1 5 10 15

Ser Leu Ile Leu Glu Lys Ser Gln Asn Trp Ser Ser Gln Lys Met Asp
20 25 30

His Ile Leu Ile Cys Cys Val Cys Leu Gly Asp Asn Ser Glu Asp Ala
35 40 45

Asp Glu Ile Ile Gln Cys Asp Asn Cys Gly Ile Thr Val His Glu Gly
50 55 60

Cys Tyr Gly Val Asp Gly Glu Ser Asp Ser Ile Met Ser Ser Ala Ser
65 70 75 80

Glu Asn Ser Thr Glu Pro Trp Phe Cys Asp Ala Cys Lys Cys Gly Val
85 90 95

Ser Pro Ser Cys Glu Leu Cys Pro Asn Gln Asp Gly Ile Phe Lys Glu
100 105 110

Thr Asp Ala Gly Arg Trp Val His Ile Val Cys Ala Leu Tyr Val Pro
115 120 125

Gly Val Ala Phe Gly Asp Ile Asp Lys Leu Arg Pro Val Thr Leu Thr
130 135 140

Glu Met Asn Tyr Ser Lys Tyr Gly Ala Lys Glu Cys Ser Phe Cys Glu
145 150 155 160

Asp Pro Arg Phe Ala Arg Thr Gly Val Cys Ile Ser Cys Asp Ala Gly
165 170 175

Met Cys Arg Ala Tyr Phe His Val Thr Cys Ala Gln Lys Glu Gly Leu
180 185 190

Leu Ser Glu Ala Ala Ala Glu Glu Asp Ile Ala Asp Pro Phe Phe Ala
195 200 205

Tyr Cys Lys Gln His Ala Asp Arg Leu Asp Arg Lys Trp Lys Arg Lys
210 215 220

Asn Tyr Leu Ala Leu Gln Ser Tyr Cys Lys Met Ser Leu Gln Glu Arg
225 230 235 240

Glu Lys Gln Leu Ser Pro Glu Ala Gln Ala Arg Ile Asn Ala Arg Leu
245 250 255

Gln Gln Tyr Arg Ala Lys Ala Glu Leu Ala Arg Ser Thr Arg Pro Gln
260 265 270

Ala Trp Val Pro Arg Glu Lys Leu Pro Arg Pro Leu Thr Ser Ser Ala
275 280 285

Ser Ala Ile Arg Lys Leu Met Arg Lys Ala Glu Leu Met Gly Ile Ser
290 295 300

Thr Asp Ile Phe Pro Val Asp Asn Ser Asp Thr Ser Ser Ser Val Asp
305 310 315 320

Gly Arg Arg Lys His Lys Gln Pro Ala Leu Thr Ala Asp Phe Val Asn
325 330 335

Tyr Tyr Phe Glu Arg Asn Met Arg Met Ile Gln Ile Gln Glu Asn Met
340 345 350

Ala Glu Gln Lys Asn Ile Lys Asp Lys Leu Glu Asn Glu Gln Glu Lys
355 360 365

Leu His Val Glu Tyr Asn Lys Leu Cys Glu Ser Leu Glu Glu Leu Gln
370 375 380

Asn Leu Asn Gly Lys Leu Arg Ser Glu Gly Gln Gly Ile Trp Ala Leu
385 390 395 400

Leu Gly Arg Ile Thr Gly Gln Lys Leu Asn Ile Pro Ala Ile Leu Arg
405 410 415

Ala Pro Lys Glu Arg Lys Pro Ser Lys Lys Glu Gly Gly Thr Gln Lys
420 425 430

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Thr Ser Thr Leu Pro Ala Val Leu Tyr Ser Cys Gly Ile Cys Lys Lys
        435                 440                 445

Asn His Asp Gln His Leu Leu Leu Leu Cys Asp Thr Cys Lys Leu His
    450                 455                 460

Tyr His Leu Gly Cys Leu Asp Pro Pro Leu Thr Arg Met Pro Arg Lys
465                 470                 475                 480

Thr Lys Asn Ser Tyr Trp Gln Cys Ser Glu Cys Asp Gln Ala Gly Ser
                485                 490                 495

Ser Asp Met Glu Ala Asp Met Ala Met Glu Thr Leu Pro Asp Gly Thr
            500                 505                 510

Lys Arg Ser Arg Arg Gln Ile Lys Glu Pro Val Lys Phe Val Pro Gln
        515                 520                 525

Asp Val Pro Pro Glu Pro Lys Lys Ile Pro Ile Arg Asn Thr Arg Thr
    530                 535                 540

Arg Gly Arg Lys Arg Ser Phe Val Pro Glu Glu Glu Lys His Glu Glu
545                 550                 555                 560

Arg Val Pro Arg Glu Arg Arg Gln Arg Gln Ser Val Leu Gln Lys Lys
                565                 570                 575

Pro Lys Ala Glu Asp Leu Arg Thr Glu Cys Ala Thr Cys Lys Gly Thr
            580                 585                 590

Gly Asp Asn Glu Asn Leu Val Arg Cys Asp Glu Cys Arg Leu Cys Tyr
        595                 600                 605

His Phe Gly Cys Leu Asp Pro Pro Leu Lys Lys Ser Pro Lys Gln Thr
    610                 615                 620

Gly Tyr Gly Trp Ile Cys Gln Glu Cys Asp Ser Ser Ser Ser Lys Glu
625                 630                 635                 640

Asp Glu Asn Glu Ala Glu Arg Lys Asn Ile Ser Gln Glu Leu Asn Met
                645                 650                 655

Glu Gln Lys Asn Pro Lys Lys
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<210> 27
<211> 372
<212> PRT
<213> Homo sapiens

<400> 27

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Met Ser Lys Ala Phe Gly Leu Leu Arg Gln Ile Cys Gln Ser Ile Leu
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Ala Glu Ser Ser Gln Ser Pro Ala Asp Leu Glu Glu Lys Lys Glu Glu
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                20                  25                  30

Asp Ser Asn Met Lys Arg Glu Gln Pro Arg Glu Arg Pro Arg Ala Trp
         35                  40                  45

Asp Tyr Pro His Gly Leu Val Gly Leu His Asn Ile Gly Gln Thr Cys
     50                  55                  60

Cys Leu Asn Ser Leu Ile Gln Val Phe Val Met Asn Val Asp Phe Thr
 65                  70                  75                  80

Arg Ile Leu Lys Arg Ile Thr Val Pro Arg Gly Ala Asp Glu Gln Arg
                 85                  90                  95

Arg Ser Val Pro Phe Gln Met Leu Leu Leu Leu Glu Lys Met Gln Asp
            100                 105                 110

Ser Arg Gln Lys Ala Val Arg Pro Leu Glu Leu Ala Tyr Cys Leu Gln
        115                 120                 125

Lys Cys Asn Val Pro Leu Phe Val Gln His Asp Ala Ala Gln Leu Tyr
    130                 135                 140

Leu Lys Leu Trp Asn Leu Ile Lys Asp Gln Ile Thr Asp Val His Leu
145                 150                 155                 160

Val Glu Arg Leu Gln Ala Leu Tyr Met Ile Arg Val Lys Asp Ser Leu
                165                 170                 175

Ile Cys Val Asp Cys Ala Met Glu Ser Ser Arg Asn Ser Ser Met Leu
            180                 185                 190

Thr Leu Pro Leu Ser Leu Phe Asp Val Asp Ser Lys Pro Leu Lys Thr
        195                 200                 205

Leu Glu Asp Ala Leu His Cys Phe Phe Gln Pro Arg Glu Leu Ser Ser
    210                 215                 220

Lys Ser Lys Cys Phe Cys Glu Asn Cys Gly Lys Lys Thr Arg Gly Lys
225                 230                 235                 240

Gln Val Leu Lys Leu Thr His Leu Pro Gln Thr Leu Thr Ile His Leu
                245                 250                 255

Met Arg Phe Ser Ile Arg Asn Ser Gln Thr Arg Lys Ile Cys His Ser
            260                 265                 270

Leu Tyr Phe Pro Gln Ser Leu Asp Phe Ser Gln Ile Leu Pro Met Lys
        275                 280                 285

Arg Glu Ser Cys Asp Ala Glu Glu Gln Ser Gly Gly Gln Tyr Glu Leu
    290                 295                 300

Phe Ala Val Ile Ala His Val Gly Met Ala Asp Ser Gly His Tyr Cys
305                 310                 315                 320

Val Tyr Ile Arg Asn Ala Val Asp Gly Lys Trp Phe Cys Phe Asn Asp
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325 330 335

Ser Asn Ile Cys Leu Val Ser Trp Glu Asp Ile Gln Cys Thr Tyr Gly
340 345 350

Asn Pro Asn Tyr His Trp Gln Glu Thr Ala Tyr Leu Leu Val Tyr Met
355 360 365

Lys Met Glu Cys
370

<210> 28
<211> 71
<212> PRT
<213> Homo sapiens

<400> 28
Met Ala Ala Ala Leu Leu Pro Ser Gly Gln Asn Trp His Asn Thr Gly
1 5 10 15

Phe Ile Leu Glu Ser Asn Leu Thr Asn Val Met Lys Val Val Arg Leu
20 25 30

Phe Ile Lys Cys Pro Cys Leu Trp Gly His Glu Lys Ile His Thr Glu
35 40 45

Ser Ile Lys Asn Val Leu Asn Met Glu Arg Pro Leu Ser Asn Ser Asp
50 55 60

Val Met Lys Val Val Val Phe
65 70

<210> 29
<211> 302
<212> PRT
<213> Homo sapiens

<400> 29
Met Cys Thr Leu Cys Thr Val Met Lys Ser Gly Asn Gly Arg Gly Glu
1 5 10 15

Lys Asp Gly His Pro Leu Thr Ser Ser Leu Lys Ile Pro Thr Ala Ser
20 25 30

Gln Gly Ser Ala Pro Cys Arg Ser Lys Val Gly Val Gly Leu Gly Glu
35 40 45

Met Leu Pro Ile Phe Gln Gly Leu Leu Cys Phe Trp Ser Pro Gly Asn
50 55 60

Arg Cys Cys Leu Glu Leu Trp Arg Glu Gly Phe His Pro Ala Pro Thr
65 70 75 80

Ile Pro Leu Leu Phe His Thr Leu Ala Cys Gly Trp Ser Leu Thr Gly
85 90 95

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Leu Val Arg Val Ala Cys Asp Leu Arg Leu Leu Val Pro Gly His Phe
            100                 105                 110

Trp Asn Phe Gly Lys Met Cys Cys Phe Ala Ser Gly Arg Leu Tyr Leu
        115                 120                 125

Val Ala Gly Thr Leu Cys Pro Gln His Thr Phe Phe Cys Asp Ser Arg
    130                 135                 140

Gln Lys Gly Gln Met Gln Lys Gln Asn Gly Gly Lys Ala Val Asp Glu
145                 150                 155                 160

Arg Gln Leu Phe His Gly Thr Ser Ala Ile Phe Val Asp Ala Ile Cys
                165                 170                 175

Gln Gln Asn Phe Asp Trp Arg Val Cys Gly Val His Gly Thr Ser Tyr
            180                 185                 190

Gly Lys Gly Ser Tyr Phe Ala Arg Asp Ala Ala Tyr Ser His His Tyr
        195                 200                 205

Ser Lys Ser Asp Thr Gln Thr His Thr Met Phe Leu Ala Arg Val Leu
    210                 215                 220

Val Gly Glu Phe Val Arg Gly Asn Ala Ser Phe Val Arg Pro Pro Ala
225                 230                 235                 240

Lys Glu Gly Trp Ser Asn Ala Phe Tyr Asp Ser Cys Val Asn Ser Val
                245                 250                 255

Ser Asp Pro Ser Ile Phe Val Ile Phe Glu Lys His Gln Val Tyr Pro
            260                 265                 270

Glu Tyr Val Ile Gln Tyr Thr Thr Ser Ser Lys Pro Ser Val Thr Pro
        275                 280                 285

Ser Ile Leu Leu Ala Leu Gly Ser Leu Phe Ser Ser Arg Gln
    290                 295                 300


<210> 30
<211> 31
<212> PRT
<213> Homo sapiens

<400> 30
Met Pro Val Tyr Gly Ile Asn Pro His Leu Thr Phe Gln Pro Ala Ser
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Leu Pro Tyr Gly Phe Arg Thr Cys Gln Pro His Asn Ser Leu Lys
             20                  25                  30


<210> 31
<211> 95
<212> PRT
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<213> Homo sapiens

<400> 31
Met Leu Ile Glu Asp Val Asp Ala Leu Lys Ser Trp Leu Ala Lys Leu
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Leu Glu Pro Ile Cys Asp Ala Asp Pro Ser Ala Leu Ala Asn Tyr Val
20 25 30

Val Ala Leu Val Lys Lys Asp Lys Pro Glu Lys Glu Leu Lys Ala Phe
35 40 45

Cys Ala Asp Gln Leu Asp Val Phe Leu Gln Lys Glu Thr Ser Gly Phe
50 55 60

Val Asp Lys Leu Phe Glu Ser Leu Tyr Thr Lys Asn Tyr Leu Pro Leu
65 70 75 80

Leu Glu Pro Val Lys Pro Glu Pro Lys Pro Leu Ala Gln Glu Lys
85 90 95

<210> 32
<211> 261
<212> PRT
<213> Homo sapiens

<400> 32
Met Asp Ser Arg His Thr Phe Ala Pro Ala Ala Met Thr Leu Ser Pro
1 5 10 15

Leu Leu Leu Phe Leu Pro Pro Leu Leu Leu Leu Leu Asp Val Pro Thr
20 25 30

Ala Ala Val Gln Ala Ser Pro Leu Gln Ala Leu Asp Phe Phe Gly Asn
35 40 45

Gly Pro Pro Val Asn Tyr Lys Thr Gly Asn Leu Tyr Leu Arg Gly Pro
50 55 60

Leu Lys Lys Ser Asn Ala Pro Leu Val Asn Val Thr Leu Tyr Tyr Glu
65 70 75 80

Ala Leu Cys Gly Gly Cys Arg Ala Phe Leu Ile Arg Glu Leu Phe Pro
85 90 95

Thr Trp Leu Leu Val Met Glu Ile Leu Asn Val Thr Leu Val Pro Tyr
100 105 110

Gly Asn Ala Gln Glu Gln Asn Val Ser Gly Arg Trp Glu Phe Lys Cys
115 120 125

Gln His Gly Glu Glu Glu Cys Lys Phe Asn Lys Val Glu Ala Cys Val
130 135 140

Leu Asp Glu Leu Asp Met Glu Leu Ala Phe Leu Thr Ile Val Cys Met
145 150 155 160

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Glu Glu Phe Glu Asp Met Glu Arg Ser Leu Pro Leu Cys Leu Gln Leu
                165                 170                 175

Tyr Ala Pro Gly Leu Ser Pro Asp Thr Ile Met Glu Cys Ala Met Gly
            180                 185                 190

Asp Pro Gly Met Gln Leu Met His Ala Asn Ala Gln Arg Thr Asp Ala
        195                 200                 205

Leu Gln Pro Pro His Glu Tyr Val Pro Trp Val Thr Val Asn Gly Lys
    210                 215                 220

Pro Leu Glu Asp Gln Thr Gln Leu Leu Thr Leu Val Cys Gln Leu Tyr
225                 230                 235                 240

Gln Gly Lys Lys Pro Asp Val Cys Pro Ser Ser Thr Ser Ser Leu Arg
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Ser Val Cys Phe Lys
            260
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<213> Homo sapiens

<400> 33

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Met Pro Gly Tyr Arg His Cys Thr Pro Ala Trp Val Thr Glu Arg Asp
  1               5                  10                  15

Ser Val Ser Glu Lys
             20
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